Supporting Information

Fabrication of Multi-functional PVDF/RGO Composites via a Simple Thermal Reduction Process and their Enhanced Electromagnetic Wave Absorption and Dielectric properties

Xiao-Juan Zhang\(a\), Guang-Sheng Wang\(a\)*, Wen-Qian Cao\(b\), Yun-Zhao Wei\(a\), Mao-Sheng Cao\(b\), Lin Guo\(a\)*

\(a\)Key Laboratory of Bio-Inspired Smart Interfacial Science and Technology of Ministry of Education, School of Chemistry and Environment, Beihang University, Beijing 100191, PR China.

\(b\)School of Materials Science and Engineering, Beijing Institute of Technology, Beijing 100081, China.

Fig. S1. The photograph of the PVDF/GO solution.
Fig.S2. X-Ray diffraction pattern of PVDF and PVDF/RGO
**Fig. S2.** The $\varepsilon'$-$\varepsilon''$ curves of (a) pure PVDF; and (b) loading of 1 wt%; (c) loading of 3 wt%; (d) loading of 7 wt% composites.

**Fig. S3.** The photograph of the PVDF/GO film.

**Fig. S4.** The dielectric constant (a) and the dielectric loss (b) of pure PVDF.
**Fig. S5.** Dielectric loss measured at different frequencies for the PVDF/GO composites with a fill loading of 0.5 wt%, 1 wt%, 2 wt%, 2.5 wt% and 3 wt% at room temperature.